* Please visit the product pages on our website for the most up-to-date product information

DESIGN MATERIALS AND FEATURES

Molded cable assemblies offer many advantages over conventionally-fabricated cables:

- Improved wiring strain relief.
- Proper match of cable diameter to handle.
- Sealed junction: Less exposed area; less contamination due to moisture, dust, dirt.
- Lower weight and smaller size.
- 100% shielding on selected types.
- Color to match/complement equipment decor.
- Legends, color codes, ribs, dot, customer logo/indicia can be added.
- All molded cables are 100% tested for continuity, shorts and voltage breakdown (250 or 500V).
- All Switchcraft® molded assemblies are UL recognized.

OEM COST SAVINGS

Molded cable assemblies generally cost less than your in-house conventionally-fabricated assemblies. Specific advantages are elimination of:

1. Your evaluation, ordering, incoming inspection, and stocking of individual parts.
2. Your plant/equipment needs for in-house fabrication.
3. Your tooling/labor costs
4. Your production line QA/QC.

MOLDED CABLE RELIABILITY

In a series of OEM-conducted tests of Switchcraft versus non-molded, fabricated cables, Switchcraft cables were shown to be superior.

1. Fabricated cables broke at lower pull forces: OEM types – 24 to 34 pounds, molded cables – 37.5 to 41 pounds (molded cables did not break at terminations; the cable itself broke about one to two feet back from the connector).
2. Fabricated cables suffered broken wires at low pull-out force limits. Molded cables had cable breaks before cable pulled out of the handle, in most instances. And this failure occurred, as previously noted, at higher pull-out forces.

Strengthened molded cable assemblies out-performed fabricated assemblies, and in fact, the crimp molding process makes it stronger than the wire itself.

SPECIAL ORDER ITEMS

- Customer logo
- Panel Relief Bushing. Specify panel thickness and exact point on cable where bushing is to be installed. Standard panel opening is .50" (12.7 mm) diameter. Double flatted in panels up to .125" (3.18 mm) thick.
- Molded Cable Clamp Bands or Y-Junctions. (Refer to page 258.)
- Special Termination (see separate chart). Contact Switchcraft for specials and provide complete details.

TYPES OF PLASTICS

Thermoplastics used for molded cable assemblies, have excellent electrical and mechanical properties, are economical, convenient for molding, and can be provided in an array of colors. They have electrical characteristics far higher than required, and provide dimensional stability, abrasion and abuse resistance, and can be molded with a smooth mirror-like finish or matte or semi-matte finishes.

WIRE AND CABLE

Switchcraft provides over 100 types of wire and cable from which molded cable assemblies are manufactured. Basically, 30 different cables are used for standard tooling. There are no additional charges where standard tooling exists.

Tooling is designed so cable entry openings on molded plastic handles fit tightly to the outside diameter of the cable. The tighter fit holds cable secure and is more resistant to abuse than if a larger opening were used.

DESIGN AND FABRICATING TECHNIQUES

Switchcraft's engineering staff is supported by a complete tool and die making facility, as well as a fully equipped and staffed molding department to fill all of Switchcraft's plastic molding requirements.

The molding department uses injection molders of semi-automatic, multiple-cavity type to obtain high production rates.

MANUFACTURING SEQUENCE (EXAMPLE)

Step 1: The 1-piece tip rod is firmly staked into the phone plug finger assembly, making a complete and mechanically secure assembly. (Refer to Figure 1) The staking process, using precision manufactured parts, keeps the tip rod assembly from working loose and causing mechanical and electrical problems later.

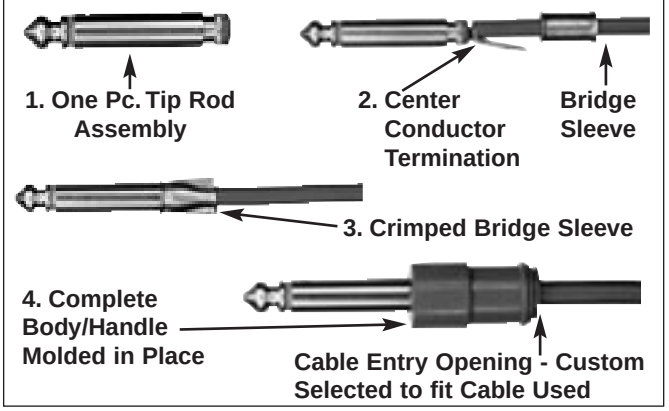
Step 2: Cable center conductor is soldered to tip rod; then the tubular bridge sleeve is slid forward, bringing the cable shield in contact with the circular notch around rear of tip rod assembly.

Step 3: Bridge sleeve is crimped tightly to tip rod assembly and cable. Center conductor is completely isolated from potential pulling strains, and shield makes a firm, low resistance connection with plug sleeve.

Step 4: A dimensionally stable plastic handle/body of the proper color, size and shape is molded into place. Features are depressions for finger grip, cable entry opening customized to cable diameter to minimize wear on cable, and handle/body molded in one place.

From start to finish, Switchcraft's molded cables are designed and built with maximum quality and reliability. There is virtually no limit to the type and characteristics of special molded cables that Switchcraft can build to special order. For all special orders, consult Switchcraft.

FIGURE 1: MOLDED CABLE MANUFACTURING STEPS FOR 1/4" LITTEL PLUG®



DIMENSIONS ARE FOR REFERENCE ONLY Inch (mm)